

**Review of the Nearctic Species of *Pieris "napi"* as Classified by
Androconial Scales and Description of a New Seasonal Form
(Lepidoptera: Pieridae)**

CYRIL F. DOS PASSOS¹

Abstract: This paper reviews the classification of the North American *Pieris "napi"* species based upon androconial scales and lists geographically all names. A new name for the summer form *Pieris narina mogollon* is proposed.

Probably few American lepidopterists have had an opportunity to see two recent papers (Warren, 1961, and 1963) on the androconial scales and their bearing on the question of speciation in the genus *Pieris*, especially on the classification of the Nearctic species of the *Pieris "napi"* group. These papers are of importance to American students since they separate that "species" into three entities and introduce two new names, **bryoniae** Ochseneimer, 1808 and **narina** Verity, 1905–11 [1908], into our fauna. Both of Warren's papers are illustrated from photographs, with figures of the androconial scales of all species and subspecies of "napi" being given on four plates containing 95 figures. The second paper on the Nearctic species is concerned with additional material which changes somewhat the classification of the first paper.

As a result of Warren's study I have arranged the three Nearctic "napi" species geographically. The numbers following the respective names refer to Warren's figures which illustrate the scales.

*1 **bryoniae** Ochseneimer, 1808; pl. 2, figs. 27, 28, 30

a *b. hulda* Edwards, "1868–9" (1869); pl. [4], fig. 1

b *b. pseudobryoniae* Verity, "1905–11" [1908]; pl. 2, figs. 32, 33, pl. [4], figs. 2, 3
arctica Verity, "1905–11" [1911]

c *b. frigida* Scudder, 1861 (gen. vern.); pl. 2, figs. 43, 44, pl. [4], figs. 4, 5, 6
borealis Grote, 1873

pseudoleracea Verity, "1905–11" [1908]

gen. aest. *acadica* Edwards, 1881

*2 **napi** (Linnaeus), 1758

napae Edwards, 1881 (*Lapsus calami*)

a *n. marginalis* Scudder, 1861 (gen. vern.); pl. [4], fig. 10

gen. aest. *pallida* Scudder, 1861; pl. [4], fig. 11

*3 **narina** Verity, "1905–11" [1908]; pl. 2, figs. 45, 46

a *n. venosa* Scudder, 1861 (gen. vern.); pl. 2, figs. 39, 41?, pl. [4], figs. 17, 18, 20

‡*nasturtii* Boisduval (*nec* Edwards, 1864); 1869

microstriata J. A. Comstock, 1927

form ♀ *flava* Edwards, 1881

¹ Research Associate, Department of Entomology, The American Museum of Natural History; Research Associate, Section of Insects and Spiders, Carnegie Museum.

* The nominal species does not occur in the Nearctic region. Preoccupied names are marked with a ‡.

- gen. aest. *castoria* Reakirt, 1866; pl. [4], fig. 19
iberidis Boisduval, 1869
 ab. *resedae* Boisduval, 1869
 ab. *flava* Edwards, 1881
 ab. *cottlei* Gunder, 1925
- b *n. macdunnoughii* Remington, 1954 (gen. vern.); pl. [4], figs. 12, 13
 ‡*pseudonapi* Barnes & McDunnough (*nec* Verity "1905-11" [1911], 1916
 gen. aest. *pallidissima* Barnes & McDunnough, 1916; pl. 2, fig. 47, pl. [4], fig. 14
- c *n. mogollon* Burdick, 1942 (gen. vern.); pl. [4], fig. 15
 gen. aest. *warreni* dos Passos, 1965; pl. [4], fig. 16
- d *n. oleracea* Harris, 1829 (gen. vern.); pl. 2, figs. 35, 36, pl. [4], figs. 7, 8
hyemalis Harris, 1829
casta (Kirby), 1837
 ab. *virginiensis* Edwards (*nec* Edwards, 1870), 1881
 gen. aest. *cruciferarum* Boisduval, 1836; pl. [4], fig. 9
aestiva Harris, 1850
- e *n. virginiensis* Edwards "1870-1" (1870); pl. 2, fig. 40, pl. [4], figs. 21, 22, 23

Although seasonal form names are no longer recognized by the International Code of Zoological Nomenclature, the fact that the other subspecies listed above, with one exception, already have seasonal names has led me to continue this practice. It is with pleasure that the second generation of *mogollon* is named after my friend Mr. B. C. S. Warren of Folkestone, England.

Pieris narina mogollon gen. aest. **warreni**, new form

This form differs from the first generation, as is usual with these insects, in being more lightly marked on both sides, the dark markings of the upper and undersides of the spring generation being faint.

The holotype male was taken on July 16, 1932 in the White Mountains of Arizona and the allotype female was taken at the same locality on July 28, 1932. Both types are *ex* collection F. R. Sternitzky and have been deposited in the American Museum of Natural History. There is a pair of paratypes labeled merely "Arizona," the male, July, and the female, August, which were examined by Mr. Warren, as well as another paratype female labeled White Mountains, Arizona, July 4, 9,500 feet, collected by D. K. Duncan. These three paratypes are in the author's collection.

In the American Museum of Natural History there is a long series of both seasonal forms but they are all from New Mexico and seem intermediate between *P. n. macdunnoughii* and *mogollon*. They are not designated as paratypes.

Literature Cited

- OCHSENHEIMER, FERDINAND. (1-4, and Friedrich Trietschke 5-10). 1807-1835. Die Schmetterlinge von Europa. 1807, **1**: [4] + 324 pp., 1808, xxx + [2] + 240 pp.; 1808, **2**: xxiv + 256 pp.; 1810, **3**: viii + [2] + 360 + [2] pp.; 1816, **4**: x + [2] + 13-222 + 225-226 pp.; 1825, **5**: pt. 1, xvi + 416 pp., pt. 2, 418 pp.; 1826, pt. 3, iv + 420 pp.; 1827, **6**: viii + [2] + 371-440 + 368 pp., 1828, 320 pp.; 1829, **7**: vi + 252 pp.; 1830, **8**: viii + 312 pp.; 1832, **9**: viii + 272 pp., 1833, [2] + 294 pp.; 1834, **10**: xvi + 286 pp., 1835, [6] + 340 + [8] + 302 + [2] pp. Leipzig.

- VERITY, ROGER. 1905-1911. *Rhopalocera. Palaearctica*, lxxxvi + 368 + xii pp., 86 pls. Pub. by author, Florence.
- WARREN, BRISBANE CHARLES SOMERVILLE. 1961. The androconial scales and their bearing on the question of speciation in the genus *Pieris*. (Lepidoptera). *Entomol. Tidskr.* **82**: 121-148.
- . 1963. The androconial scales in the genus *Pieris*. 2. The Nearctic species of the *napi*-group. *Ibid.* **84**: 1-4.

RECEIVED FOR PUBLICATION FEBRUARY 24, 1964